Appendix A:

Center Chronology

31 January 1958	Jupiter C launched Explorer I, first United States satellite
1 July 1960	Marshall Space Flight Center (MSFC) established
1961	First Mercury-Redstone launch with live chimpanzee payload
1961	First -manned Mercury-Redstone launch and suborbital flight
1961	President John F. Kennedy set goal of manned lunar landing by end of the decade
7 September 1961	NASA chose Michoud Ordnance Plant near New Orleans for production of the Saturn S-I Stage and put it under the technical direction of MSFC
October 1961	NASA created the Mississippi Test facility under direction of MSFC
27 October 1961	First Saturn I launched
1962	MSFC Launch Operations Directorate at Cape Canaveral, Florida became an independent NASA Center
July 1962	MSFC acquired Slidell Center Computer Facility in Slidell, Louisiana to service Michoud Operations
1 September 1963	MSFC reorganization established two directorates: Research and Development Operations and Industrial Operations.
1965	Huntsville Operations Support Center established

16 February 1965	A Saturn I launched the first of three Pegasus micro-meteoroid detection satellites
17 February 1966	First test firing of the S–IC–1 for 40.7 seconds
26 February 1966	AS–201, the first Saturn IB flight vehicle, successfully launched from Cape Kennedy
9 November 1967	Apollo 4, first Saturn V, SA 501 launched
1968	Neutral Buoyancy Simulator completed
1969	Major MSFC reorganization establishing directorates in Program Development, Science and Engineering, Administration, and Program Support
June 1969	MSFC assigned to develop lunar roving vehicle
16 July 1969	Apollo 11 launch for first human landing on the moon
12 January 1970	NASA announced Dr. Wernher von Braun would be transferred to NASA Headquarters, Washington
March 1970	Apollo Applications Program name changed to *Skylab*
1 March 1970	Dr. Eberhard Rees replaced Dr. von Braun as director of MSFC
May 1970	NASA selected McDonnell Douglas Astronautics Co. and North American Rockwell Corp. for definition and preliminary design studies of a reusable Space Shuttle vehicle for possible future space flight

30 September 1970	Final first S–IC–15 stage tested at MTF
30 October 1970	Final second S–II–15 stage tested at MTF
19 June 1971	MSFC assigned responsibility for the Space Shuttle booster stages and main engine
26 July 1971	During the Apollo 15 mission, first lunar roving vehicle used on the Moon
1972	Apollo 17, last lunar landing mission
1972	Space telescope assigned to MSFC
1972	Program offices established for *Skylab* and HEAO
1972	Shuttle Projects Office established
January 1972	President Nixon approved development of the Space Shuttle
1973	MSFC assigned responsiblity for design and development of the Space Shuttle main engine (SSME), external tank (ET), and the solid rocket booster (SRB)
26 January 1973	Dr. Rocco Petrone replaced retiring Dr. Eberhard Rees as Center Director
March 1973	European Space Research Organization (ESRO) announced would design, develop, and manufacture a Spacelab to be launched by the Shuttle with MSFC as Lead Center
14 May 1973	Final Saturn V placed *Skylab* space station into Earth orbit

15 May 1973	MSFC workers and engineers begin intense two-week effort to develop solution for *Skylab* solar shield problem
25 May 1973	Launch of *Skylab* rescue mission to deploy solar shield
24 September 1973	Memorandum of Understanding on international cooperation in NASA's Space Shuttle Program signed by NASA and ESRO for development of Spacelab
21 December 1973	Establishment of a Spacelab Program Office at MSFC to manage NASA's activities in the international project
1974	Science and Engineering Directorate reorganized
1974	Final *Skylab* mission of record 84 days completed
14 June 1974	NASA's Mississippi Test Facility renamed the National Space Technology Laboratories, and became an independent NASA installation
17 June 1974	Dr. William Lucas became MSFC director
24 September 1974	MSFC named Lead Center for NASA activities under the Solar Heating and Cooling Demonstration Act under the direction of NASA HQs Office of Energy Program
1975	Spacelab I and II responsibility assigned to MSFC
20 January 1975	Interagency agreement between NASA and Department of Interior to use NASA technology for mineral extraction with MSFC as Lead Center
17 July 1975	Apollo-Soyuz rendezvous

7 October 1975	Establishment of an advanced mineral-extraction task team within the Program Development directorate working with the Department of Interior's Bureau of Mines
1976	Spacelab Payload Project and Special Projects Offices established
1976	Spacelab III project management assigned to MSFC
4 February 1976	First main stage test of the SSME occurred at the NSTL in Mississippi
5 February 1976	Restoration of Mercury/Redstone test stand to original appearance as historic site at MSFC
4 May 1976	NASA launched LAGEOS
16 June 1977	Wernher von Braun died in Virginia
17 August 1977	First HEAO satellite launched
1978	Materials Processing in Space Projects Office established
1978	HOSC reactivated for Shuttle launch support
11 July 1979	*Skylab* reentered atmosphere
1980	First joint endeavor agreement between MSFC and McDonnell Douglas for materials processing in space
1981	Spacelab integration began
1981	Space telescope mirror polishing completed

12 April 1981	First Space Shuttle mission (STS–01) orbiter *Columbia* launched
1983	Tenth and final SPAR flight
28 November 1983	First launch of Spacelab
1984	Space Station Projects Office established
August 1984	Solar Array Flight Experiment OAST–1 mission
1984	Space telescope's optical telescope assembly completed and delivered
1984	Work began on Payload Operations Control Center
28 June 1984	MSFC officially assigned to a portion of Space Station responsibility
November 1985	61–B Launch—ASES (Experimental Assembly of Structures in Extravehicular Activity) and ACCESS (Assembly Concept for Construction of Erectable Space Structures)—Marshall managed payloads representing the first flight demonstration of construction of large structures in space
1985	Space telescope assembly in progress
28 January 1986	51–L *Challenger* disaster
24 March 1986	MSFC formed solid rocket motor redesign team to requalify the motor of the SRB
July 1986	Dr. William Lucas resigned as director of MSFC; Thomas J. Lee appointed as interim director

29 September 1986	James R. Thompson became Center Director
27 August 1987	First full-duration test firing of the redesigned SRM
29 September 1988	STS–26 *Discovery* Return to Flight
July 1989	James R. Thompson resigned to become NASA deputy administrator. Thomas Jack Lee became director of MSFC.